

**SIC NMOSFET FOR USE AS A POWER SWITCH AND
A METHOD OF MANUFACTURING THE SAME**

ABSTRACT OF THE DISCLOSURE

A lateral metal-oxide semiconductor field effect transistor
(MOSFET) formed over a substrate of a semiconductor wafer, a method
of manufacturing the same and a semiconductor device incorporating
the MOSFET or the method. In one embodiment, the MOSFET includes
a silicon carbide layer located over or within the substrate, a
gate formed on the silicon carbide layer. The MOSFET further
includes source and drain regions located in the silicon carbide
layer and in contact with the gate, the silicon carbide layer
increasing a breakdown voltage of the MOSFET.